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08/717,042	09/20/96	PALLEY	I 30-3744CIP

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QM12/1026

EXAMINER

ELOSHWAY, N

ART UNIT

PAPER NUMBER

3727

DATE MAILED:

10/26/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No.

08/717,042

Applicant(s)

PALLEY ET AL.

Examiner

Niki M. Eloshway

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 1999.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-66 is/are pending in the application.
- 4a) Of the above claim(s) 12, 48-50 and 54-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13-47 and 51-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

### Attachment(s)

- 14) ☐ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other:

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## DETAILED ACTION

### *Election/Restriction*

1. Claims 12, 48-50 and 54-66 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected species. Election was made **without** traverse in Paper No. 11.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### Galber and MacDonald et al.

3. Claims 1, 8, 10, 11, 13, 15, 19, 33 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber (U.S. 4,915,291) in view of MacDonald et al. (U.S. 3,822,807). Galber discloses the claimed invention except for the blast mitigating material. MacDonald et al. teach that it is known to provide a container with foam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Galber with the foam of MacDonald et al., in order to prevent a rise in pressure within the container. The material of the Galber container is considered fibrous.

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4. Claims 3-6, 16-18, 20-28, 30, 35-43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber in view of MacDonald et al., as applied to claims 1, 2, 15 and 33 above, and further in view of Prevorsek et al. (U.S. 5,545,455). The modified container of Galber discloses the claimed device except for the band material. Prevorsek et al. disclose that it is known in the art to make a container from layers comprising networks of fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified container of Galber with the fibrous material of Prevorsek et al., in order to make a container with improved penetration resistance.

The fibers of Prevorsek et al. are considered to be substantially continuous in length (see col. 8 lines 17-45 or Prevorsek et al.). Prevorsek et al. disclose that the fibers have a tenacity of at least 15 grams/denier and a tensile modulus of at least 300 grams/denier (see col. 7 lines 14-22). In col. 7 line 62- col. 8 line 16, Prevorsek et al. teach that aramid fibers and glass fibers may be used to form the fibrous layers, and in col. 7 lines 10-11 Prevorsek et al. disclose that polyolefin fibers may be used in the fibrous layer. The claimed matrix is disclosed in col. 8 line 17 – col. 9 line 38 of Prevorsek et al., in particular on line 3 of col. 9, a polyurethane matrix is disclosed.

The modified container of Galber does not specifically disclose the specific percent of the fibers which are considered to be “substantially continuous”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a certain percent of the fibers substantially continuous depending on what strength and rigidity is considered desirable for the container and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**Galber and Gettle et al.**

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5. Claims 1, 9, 33 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber in view of Gettle et al. Galber discloses the claimed invention except for the blast mitigating material. Gettle et al. teach that it is known to provide a container with aqueous foam (see line 11 of the Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Galber with the aqueous foam of Gettle et al., in order to attenuate pressure waves. The material of the Galber container is considered fibrous.

6. Claims 3, 4, 7, 20, 23, 27, 29, 31, 35, 38, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber in view of Gettle et al., as applied to claims 1, 2 and 33 above, and further in view of Prevorsek et al. The modified container of Galber discloses the claimed device except for the band material. Prevorsek et al. disclose that it is known in the art to make a container from layers comprising networks of fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified container of Galber with the fibrous material of Prevorsek et al., in order to make a container with improved penetration resistance.

The fibers of Prevorsek et al. are considered to be substantially continuous in length (see col. 8 lines 17-45 or Prevorsek et al.). Prevorsek et al. disclose that the fibers have a tenacity of at least 15 grams/denier and a tensile modulus of at least 300 grams/denier (see col. 7 lines 14-22). In col. 7 line 62- col. 8 line 16, Prevorsek et al. teach that aramid fibers and glass fibers may be used to form the fibrous layers, and in col. 7 lines 10-11 Prevorsek et al. disclose that polyolefin fibers may be used in the fibrous layer. The claimed matrix is disclosed in col. 8 line 17 – col. 9 line 38 of Prevorsek et al., in particular on line 3 of col. 9, a polyurethane matrix is disclosed.

The modified container of Galber does not specifically disclose the specific percent of the fibers which are considered to be “substantially continuous”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a certain percent of the fibers

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substantially continuous depending on what strength and rigidity is considered desirable for the container and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**Lewis and MacDonald et al.**

7. Claims 1, 10, 11, 14, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. 0,674,009) in view of MacDonald et al. Lewis discloses the claimed invention except for the blast mitigating material. MacDonald et al. teach that it is known to provide a container with foam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Lewis with the foam of MacDonald et al., in order to prevent a rise in pressure within the container.

**Prevorsek et al., Lewis and MacDonald**

8. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prevorsek et al. in view of Lewis and Gettle et al. Prevorsek et al. do not disclose the specific shape of the container and the aqueous foam, but Prevorsek et al. do teach the use of two or more reinforcing bands arranged at varying angles (see col. 10 lines 48-56). Lewis teaches that it is known to provide a container made of three bands having perpendicular longitudinal axis (see figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the reinforcing bands of Prevorsek et al. to structure a container, as taught by Lewis, in order to form a container with increased strength.

Gettle et al. teach that it is known to provide a container with foam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Prevorsek et al. with the foam of Gettle et al., in order to attenuate pressure waves.

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Regarding the density of the aqueous foam, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the foam of Gettle et al. with a density between 0.01 and 0.10 g/cm<sup>3</sup>, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**Galber, MacDonald et al. and Prevorsek et al.**

9. Claims 47, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber in view of MacDonald et al. and Prevorsek et al. Galber discloses the claimed invention except for the blast mitigating material. MacDonald et al. teach that it is known to provide a container with foam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Galber with the aqueous foam of MacDonald et al., in order to prevent the rise of pressure within the container. The material of the Galber container is considered fibrous.

The modified container of Galber discloses the claimed device except for the band material. Prevorsek et al. disclose that it is known in the art to make a container from layers comprising networks of fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified container of Galber with the fibrous material of Prevorsek et al., in order to made a container with improved penetration resistance.

The fibers of Prevorsek et al. are considered to be substantially continuous in length (see col. 8 lines 17-45 or Prevorsek et al.). Prevorsek et al. disclose that the fibers have a tenacity of at least 15 grams/denier and a tensile modulus of at least 300 grams/denier (see col. 7 lines 14-22). In col. 7 line 62- col. 8 line 16, Prevorsek et al. teach that aramid fibers and glass fibers may be used to form the fibrous layers, and in col. 7 lines 10-11 Prevorsek et al. disclose that polyolefin fibers may be used in

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the fibrous layer. The claimed matrix is disclosed in col. 8 line 17 – col. 9 line 38 of Prevorsek et al., in particular on line 3 of col. 9, a polyurethane matrix is disclosed.

The modified container of Galber does not specifically disclose the specific percent of the fibers which are considered to be “substantially continuous”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a certain percent of the fibers substantially continuous depending on what strength and rigidity is considered desirable for the container and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**Galber, Gettle et al., and Prevorsek et al.**

10. Claims 47 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galber in view of Gettle et al. and Prevorsek et al. Galber discloses the claimed invention except for the blast mitigating material. Gettle et al. teach that it is known to provide a container with aqueous foam (see line 11 of the Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Galber with the aqueous foam of Gettle et al., in order to attenuate pressure waves. The material of the Galber container is considered fibrous.

The modified container of Galber discloses the claimed device except for the band material. Prevorsek et al. disclose that it is known in the art to make a container from layers comprising networks of fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified container of Galber with the fibrous material of Prevorsek et al., in order to made a container with improved penetration resistance.

The fibers of Prevorsek et al. are considered to be substantially continuous in length (see col. 8 lines 17-45 or Prevorsek et al.). Prevorsek et al. disclose that the fibers have a tenacity of at least 15



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grams/denier and a tensile modulus of at least 300 grams/denier (see col. 7 lines 14-22). In col. 7 line 62- col. 8 line 16, Prevorsek et al. teach that aramid fibers and glass fibers may be used to form the fibrous layers, and in col. 7 lines 10-11 Prevorsek et al. disclose that polyolefin fibers may be used in the fibrous layer. The claimed matrix is disclosed in col. 8 line 17 – col. 9 line 38 of Prevorsek et al., in particular on line 3 of col. 9, a polyurethane matrix is disclosed.

11. The modified container of Galber does not specifically disclose the specific percent of the fibers which are considered to be “substantially continuous”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a certain percent of the fibers substantially continuous depending on what strength and rigidity is considered desirable for the container and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

12. Applicant's arguments filed August 9, 1999 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation provided to modify the Galber and Lewis devices, is found in the secondary references.

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13. In response to applicant's arguments that the Lewis and Galber containers could not resist blasts, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. In order to reduce pendency and avoid potential delays, Group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at (703)305-3579. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into group 3720 will be promptly forwarded to the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niki M. Eloshway whose telephone number is (703) 308-1606. Any inquiry of a

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general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1148.



Niki M. Eloshway/nme  
Patent Examiner  
October 25, 1999



Allan N. Shoap  
Supervisory Patent Examiner  
Group 3700